AN ASSESSMENT OF THE TAURAGE AREA OF THE LITHUANIAN SSR AS A LAUNCHING SITE FOR GUIDED MISSILES 1958 THROUGH JUNE 1960

February 1961

CENTRAL INTELLIGENCE AGENCY
Office of Research and Reports
Office of Scientific Intelligence
Office of Current Intelligence

SECRET

AN ASSESSMENT OF THE TAURAGE AREA OF THE LITHUANIAN SSR AS A LAUNCHING SITE FOR GUIDED MISSILES 1958 THROUGH JUNE 1960

CENTRAL INTELLIGENCE AGENCY
Office of Research and Reports
Office of Scientific Intelligence
Office of Current Intelligence

SECRET

FOREWORD

This report is the first of a series that examines in detail and assesses all evidence on particular locations suspected of being deployment areas for long-range ballistic missiles in the USSR. A number of Baltic locations, including Taurage (55°15' N - 22°17' E), Khaapsalu (58°56' N - 23°33' E), Paplaka (56°26' N - 21°27' E), and Kaliningrad (54°43' N - 20°30' E), have been reported as possible launching sites. This report attempts to locate, identify, and assess the missile activity in the Taurage area of the Lithuanian SSR.

The analysis is based almost entirely on interrogations

Although most of these have been inexperienced observers and some perhaps are unreliable reporters, the volume of reporting is sufficient to permit cross-checking for consistency. In view of a lack of other types of reporting, however, the conclusions of this report must be considered tentative.

BLANK PAGE

CONTENTS

Appendixes

Table

Illustrations

AN ASSESSMENT OF THE TAURAGE AREA OF THE LITHUANIAN SSR AS A LAUNCHING SITE FOR GUIDED MISSILES* 1958 THROUGH JUNE 1960

Summary and Conclusions

During 1959 and 1960, facilities for guided missiles may have been constructed, and missiles may have been deployed, in the vicinity of Taurage in the Lithuanian SSR. Sightings of missiles, the nature of the construction activity, and the types of military personnel in the area indicate that more than one type of missile system may be involved.

The most significant missile activity in the area is related to the deployment of the medium-range ballistic missile, the 700-nautical-miie (nm) Shyster (SS-4). The Taurage missile complex appears to be an integrated operational missile facility. There is evidence of launching, support, and warhead-storage facilities in a widely dispersed missile complex connected by a good road network. The launching sites appear to be dispersed over a triangular-shaped area of approximately 450 square kilometers (sq km), and it is possible that additional evidence will show that the site area may be generally rectangular and approximately double the present size if the activity in the Erzvilkas (55°16' N - 22°43' E) and Vadzgirys (55°16' N - 22°55' E) areas** proves to be related.

The establishment of rigid security measures, clearing of land, shipments of construction materials, and preparatory construction began in certain parts of the site area in the summer and fall of 1958. Available evidence, however, suggests that full-scale construction did not get underway until early in 1959. During December 1959 or January 1960, approximately 80 Shyster missiles were transported to the unidentified facility north of Taurage. This type of activity normally

* The estimates and conclusions in this report represent the best judgment of the contributing Offices as of 1 December 1960.

** See III, A, 5, p. 10, below.

would signify the completion of construction, installation, and checkout of ground support equipment and the beginning of missile unit occupancy. As of May 1960, however, construction work was still in progress at least in some areas. In the US the construction of the individual complexes that make up a launching site is staggered, and missiles consequently may appear at the site before construction work is completed for the entire site. It appears that, to obtain operationally ready launching sites at the earliest date, the USSR also delivers missiles to missile complexes before completion of all construction work.

The duration of the construction period of the Taurage complex is generally considered to be compatible with construction periods for similar US sites. On the assumption that the missiles sighted during December 1959 or January 1960 arrived for installation and checkout, it is estimated that some part of the missile complex would have an operational capability probably no later than by mid-1960.

In addition to the Shyster missile, other missile activity has been evident in the Taurage area since 1959. The description of missiles and associated equipment observed during 1959 and 1960 indicates that short-range ballistic missiles and unguided rockets are based in the vicinity.* There also have been indications of the presence of artillery troops in the area since 1956 and that the area north of Taurage has been used in the past for training artillery troops.

The presence of missiles other than the Shyster lends some support to the hypothesis that the Taurage complex is a central support facility for units equipped with missiles of varying ranges. These units would have the capability of deploying to launching positions both in the immediate vicinity of Taurage and in other areas in the Baltic Region.

Although there have been one sighting of a missile the description of which closely resembles the Guideline (SA-2) surface-to-air missile (SAM)** and a mentio[illegible] of an antiaircraft unit stationed at Taurage, a check [illegible] hows no evidence of SAM-associated

* For a detailed description of missiles observed in the Taurage area, see the table, p. 16, below.

** See item 9 in the table, p. 18, below.

Spoon Rest or Fruit Set radars in the vicinity of Taurage.* Even though SAM activity cannot be completely ruled out, the lack of any additional evidence that would indicate the existence of such activity in the Taurage complex makes it appear unlikely that the complex is concerned with the deployment of SAM missiles.

There are certain features of the Taurage area that make it well suited for the deployment of intercontinental ballistic missiles (ICBM). An ICBM with a nominal range of 5,500 nm would be capable of striking better than 90 percent of the nuclear retaliatory force bases in the continental US. Considered in conjunction with the adequate transportation facilities in the area and the advantage of climate in relation to locations in more northern sites, Taurage would be a favorable location for an ICBM launching site. There is, however, no evidence available at this time which indicates that the Taurage area will be used for this purpose. There remains a potential for growth to this capability, and the area should be kept under surveillance for any new developments.

---

* For a discussion of other radar in the vicinity, see Appendix A, 2 and 8, pp. 25 and 33, respectively, below.

BLANK PAGE

I. Introduction

Taurage, which is located approximately 40 nautical miles (nm) east of the Baltic Sea and approximately 10 nm north of the RSFSR border in the Lithuanian SSR, is the focal point for activity related to missiles in the area bounded by Silale (55°29' N - 22°12' E), Skaudvile (55°25' N - 22°37' E), Jurbarkas (55°04' N - 22°46' E), and Sovetsk (55°05' N - 21°53' E).

Taurage is favorably situated for the deployment of medium-range ballistic missiles. It is located approximately 500 nm from the West German border and approximately 900 nm from the coast of Great Britain. The Soviet 1,100-nm missile based in the Taurage area would have within its range all major targets in Western Europe except Spain (see the map, Figure 1*).

II. Characteristics of the Taurage Area

The town of Taurage in the Lithuanian SSR had a population of 10,561, according to the official 1939 estimate, and is a rayon center situated in an almost entirely agricultural area. Production of grain crops (wheat, oats, and barley) and meat and dairy farming constitute the main activities. Industry in the town itself consists of a meat combine, a bakery, a machine tractor station, a brickyard, and a vegetable drying plant. 1/**

Mineral resources in the area appear to be very limited. A World War II German study mentions only peat, clay, construction loam (rammed earth), and iron (turf iron earths). Sand, gravel, and rough timber are readily available for construction. Brick and sawed lumber also are available locally.

The topography of the Taurage area is characterized by a nearly-level-to-gently-rolling surface with average slopes of less than 5 percent. Elevations in the area range from 10 to 65 meters (m) above sea level.

Levels of ground water are at or near the surface in many places throughout the area. Ground water probably will be from 0 to 30 m

* Following p. 6.

** For serially numbered source references, see Appendix B.

below the surface and, on the assumption of a wise selection of a site, it should not be too serious a problem in heavy construction.

III. Construction Activity

Construction activity that may be related to guided missiles has been reported in what can be considered four general locations in the Taurage area of the Lithuanian SSR. (For these locations see the map, Figure 3*). Very little is known of the activities within these areas inasmuch as only peripheral observations and indirect information are generally available on the highly secure restricted areas. There have been reports of recent construction of underground concrete installations; large, deep pits; concrete bunkers; concrete piles 10 m long; and concrete structures 6 m thick, for which considerable tonnages of sand, gravel, cement, steel structurals, and precast concrete structurals have been trucked into the several areas since the fall of 1958. Available evidence suggests, however, that construction probably did not get underway in all areas until the spring of 1959.

A. Specific Locations

1. Area A

Area A is most often referred to as being 6 to 10 km south or southeast of Taurage. It is bounded on the northwest by Dunokai (55°12' N - 22°17' E), on the northeast by Sakaline (55°11' N - 22°23' E), on the southwest by Zukai (55°07' N - 22°16' E), and on the east by the Viesvile River (55°04' N - 22°23' E). Specific areas of activity within Area A are the Dunokai area (Subarea A_1), the area of Pameziai (55°09' N - 22°22' E) and Sakaline (Subarea A_2), the vicinity of coordinates 55°09' N - 22°22' E (Subarea A_3), and the elevated area in the vicinity of 55°08' N - 22°22' E (Subarea A_4).

* Inside back cover. For convenience, arbitrary letter designators (A through D) have been assigned to each general area of activity, and these areas with their letter designators are shown on the map, Figure 3. Some informants have been more specific than others in identifying locations, and to show exact location whenever possible, some subareas are delineated by a subscript -- for example, Subarea A_1.

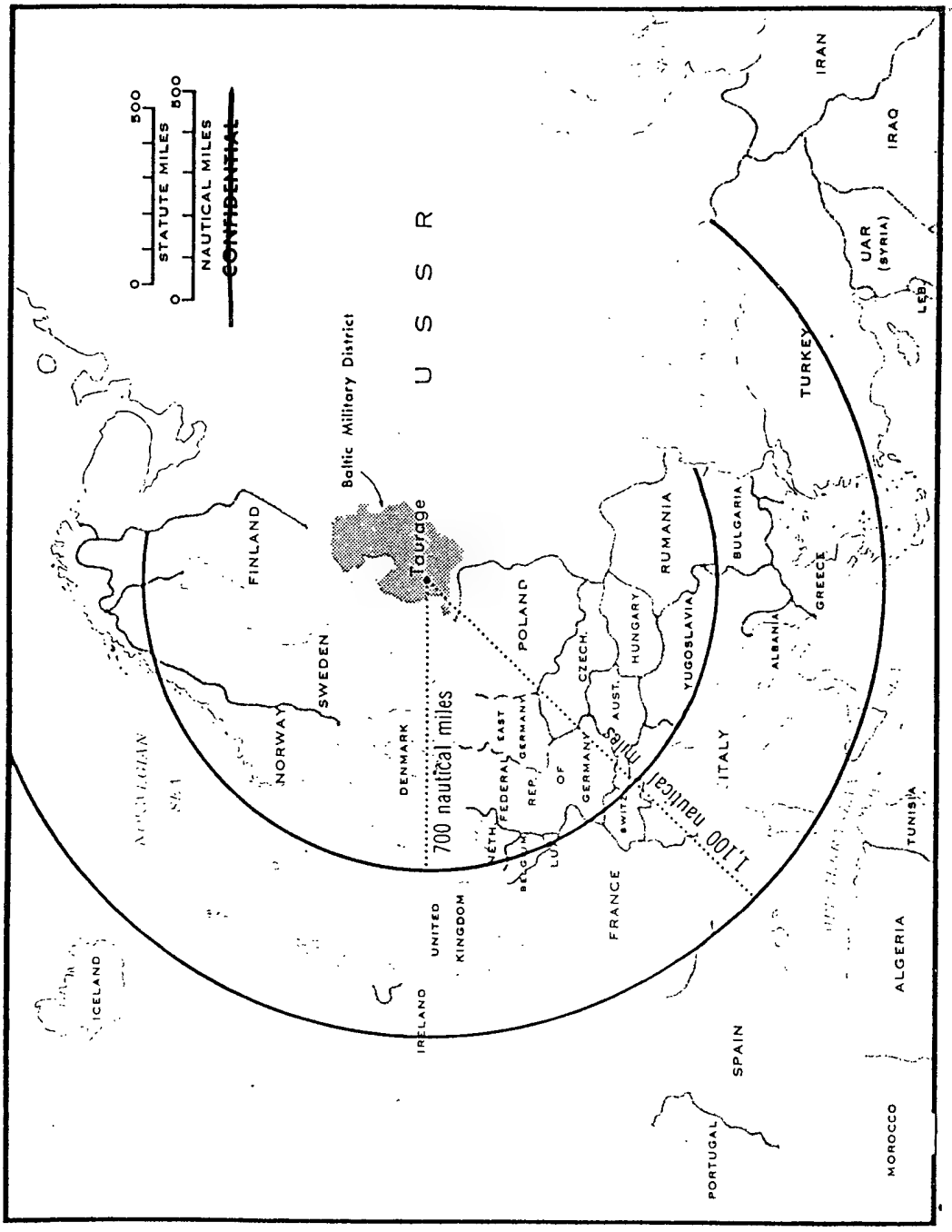

Figure 1. Target Coverage of Guided Missiles with Estimated Ranges of 700 and 1,100 Nautical Miles Launched from Taurage in the Lithuanian SSR

At least 50 informants have identified Area A as an area of military construction activity, and all except a few informants have associated the activity with guided missiles. Although much of the area appears to be unsuitable for the construction of underground installations because of poor drainage and unstable soils, specific identified areas of construction appear to be on the higher, more suitable elevations in Area A. Within Area A, there have been reports of the following: (a) concrete installations that are partly underground, concrete bunkers for storing military equipment, piles 10 m long that are driven into the ground, tunnels, and permanent buildings; (b) 1,000 Soviet soldiers repairing a road in the area; (c) electric power being installed; and (d) new rail spurs.

One detailed description of a construction site is available (see the sketch, Figure 2*). The site in Subarea A_1 was described as being approximately 1 sq km and as being surrounded by two barbed wire fences with a plowed strip 2 m wide between the fences (see No. 1 in Figure 2). Guard towers approximately 5 m high were erected 50 to 100 m apart on top of the fences (see No. 2 in Figure 2). A wooded strip 50 to 100 m wide surrounded a level concrete area (see No. 3 in Figure 2) approximately 1,000 by 800 m. On the west side of the concrete area, two concrete buildings (see No. 4 in Figure 2) were being constructed. A tunnel (see No. 5 in Figure 2) approximately 5 m wide and 5 m deep was being built from under the concrete area towards the north. The incomplete portion of this tunnel, being dug by two ditching machines, extended out of the wooded area for approximately 0.5 km. The tunnel had a concrete floor, and the walls were being built from half-elliptical concrete forms approximately 1 m wide. Construction troops were billeted in approximately 20 tents (see No. 6 in Figure 2). A new gravel road (see No. 7 in Figure 2), about 5 to 6 m wide leads into the area, and another gravel road about 5 to 6 m wide and 1 km long was built to bypass the installation. Approximately 200 Soviet soldiers were reported to be working in the area. No weapons or electronic equipment were observed. 2/

2. Area B

The location of Area B has been given on different occasions as follows: 3 km north of Budvieciai (55°16' N - 22°07' E); in the "Tyrele

* Following p. 8.

Les" (Tyruliai Woods) between the villages of Aukstupiai (55°17' N - 22°06' E), Dobrotynie* (55°18' N - 22°07' E), and Trukiske (55°17' N - 22°13' E); in the heavily wooded terrain northwest of Trukiske approximately halfway between Trukiske and Balskai (55°22' N - 22°08' E); and in the wooded area northeast of Zygaiciai (55°19' N - 22°02' E). Poor drainage and unstable soils make this area generally unsuitable for the construction of underground installations even though there may be certain locations that are suitable.

Thirteen different informants have identified this area with military construction activity, and rumors of airfield construction in this area seemed to be prevalent in 1958. By 1959, however, missile construction activity was reported in the area. One local rumor identifies Area B with missile storage. In December 1959 or January 1960, large numbers of missiles were observed being transported in the direction of Area B. In March and April 1960, 15 to 20 tracked prime movers of the type M-1950 were observed towing eight-wheel trailers approximately 8 m long in this direction. Each trailer carried a heavy load of irregularly shaped pieces. Another rumor associates the area with ammunition storage. A rail spur may have been built from the area of Pozeruonai station (55°13' N - 22°12' E) to Area B.**

The area bounded by Taurage, Silale, Kaltinenai (55°34' N - 22°27' E), and Skaudvile has been described as a training area for artillery units stationed at Taurage and in the Kaliningrad Oblast. Some activity that appears to be associated with Area B actually may be connected with training activities. 3/

3. Area C

Area C is located north of Pagulbiniai (55°04' N - 22°19' E), south of the road between Pagegiai (55°09' N - 21°54' E) and Viesvile (55°05' N - 22°23' E) and approximately 2 km northwest of Viesvile.

Eleven people have reported construction activity in this area. Of these people, three associated the site with nuclear weapons (bunkers and concrete structures 6 m thick have been reported in the

* Possibly Dabrupine.

** For a discussion of a fuel pipeline that was reported to serve Area B, see Appendix A, 7, p. 32, below.

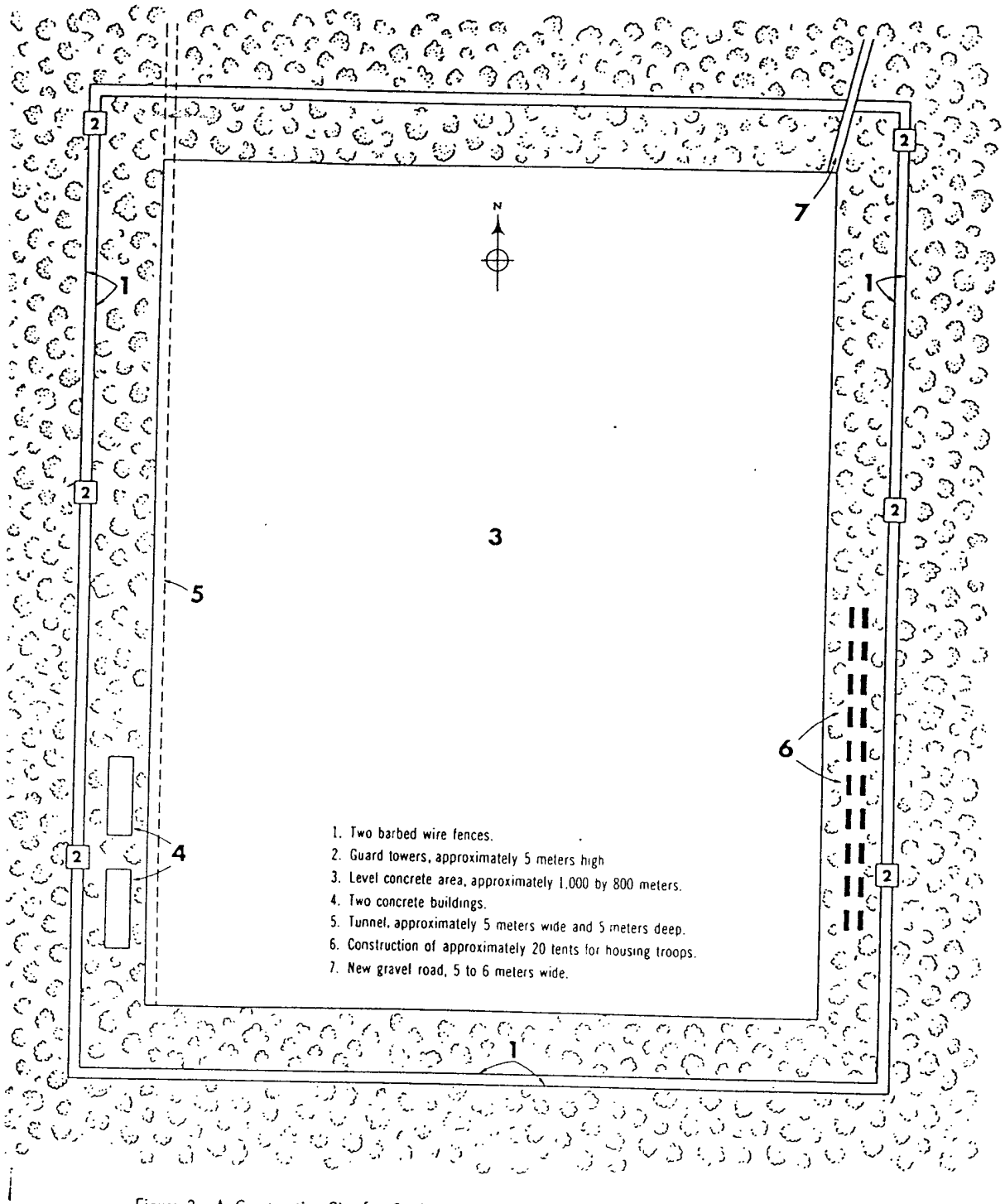

Figure 2. A Construction Site for Guided Missiles South of Taurage in the Lithuanian SSR*
15 April 1960

*This site is in subarea A_1, which is shown on the map in Figure 3, inside back cover.

area). A new road was constructed between Area C and Area A possibly linking with a road from Area B. 4/

4. Area D

Area D has five smaller sites that do not appear to be contiguous and about which little information is available. Only about 10 persons have reported military construction activity in the entire area.

The first site (Subarea D_1) is described as being located in a dense forest just east of Viesvile and immediately south of the road to Jurbarkas. The site was neither fenced nor otherwise marked as restricted. Numerous gravel roads approximately 10 m wide extending from the highway into the site were constructed by military personnel in the summer of 1958. Bricks, gravel, sand, and cement often were observed being trucked into the site. Although the site was said to have been completed in the fall of 1959, military trucks loaded with cement and cement-gravel mix were observed driving over an unpaved road into the forested site as late as March 1960.

A second site (Subarea D_2) is located about 3 to 4 km northwest of Smalininkai and 2 km east of Viesvile in a heavily forested area. A gravel road 6 m wide was constructed to the site in the fall of 1959. It was rumored in the area that construction of a nuclear "station" had started there in the fall of 1959.

A third site (Subarea D_3) is located 1 km northwest of Smalininkai, at approximately 55°05' N - 22°33' E. In the summer of 1959, excavation work and construction of piles was being carried on in a heavily guarded but unfenced site.

A fourth site (Subarea D_4) is located on both sides of the road between Smalininkai and Jurbarkas, about midway between the two towns. The restricted part south of the road extends to within a short distance of the Neman River. The part north of the road was reported to be 3 km long. Both parts were fenced and patrolled. Construction was still in progress in mid-September 1959, and it was rumored locally that large bunkers as well as a missile base were under construction there.

A fifth site (Subarea D_5) is located 15 km west-northwest of Jurbarkas in the Smalininkai Forest on both sides of the Jurbarkas-Taurage road. The project on the east side of the road began in 1958, and the project on the west side of the road began in about October 1959. In October 1959, about 100 MAZ 5-ton* trucks were continually hauling gravel and sand from pits in Jurbarkas to the construction site. 5/

5. Others

Two informants report construction of a missile site in a wooded area between Pozeruonai and the Taurage-Sovetsk highway. Neither informant was able to see inside the site. Railroad and road construction have been reported in this vicinity. Evidence available at this time is not sufficient to determine whether or not the rumored missile construction activity is related to or the same as the railroad and road construction in the area. The location is well suited for a storage function, for it is bounded on two sides by an existing rail line and a hard-surface road. 6/

Construction of a single-track broad gauge rail line from Taurage to Vadzgirys was reported to have begun in the spring of 1959 at Taurage, the originating point. By August 1959 the rail line had been constructed beyond Erzvilkas. Only one other report, possibly of the same activity, is available on railroad construction in this location. A rail spur was reported to have been constructed from the Taurage railroad station to a wooded area north of Stragute ($55^{\circ}14'$ N - $22^{\circ}21'$ E). 7/ With only two reports of this activity, it is difficult to make an evaluation, but other activity in the Erzvilkas and Vadzgirys areas suggests association with the Taurage missile site.

A construction site was observed approximately 6 km north of Erzvilkas on the right side of the road to Skaudvile in the vicinity of a World War II sod landing strip. Two bulldozers were clearing an area 300 m long on the west side (the outlines of the other sides were not observed). A detachment of approximately 20 Soviet soldiers with about 10 trucks was located on the site, and the soldiers reportedly were overheard to say that they were an advanced detachment of a construction unit which was to build a very modern airfield with a rocket launching site close by. This activity probably was the

* Tonnages are given in metric tons throughout this report.

source of the rumor reported by another person in 1958. At this time an airfield was rumored to be under construction 10 km north of Erzvilkas. 8/

In the vicinity of Vadzgirys, five timber trestle towers and one steel and timber tower have been reported in an area that is 6 by 6 km. The towers were constructed during the period June-September 1959. Each timber tower was round, was approximately 15 m high, and had a small square wooden hut on its top.* The steel tower was estimated as being about 200 m high,** its bottom half was of steel or iron tubing, and its top half was of timber. The tower was topped by a horizontally placed cross of St. Andrew having a diameter of 10 m. These towers may be intended for use in maneuvers, for it is known that the area is sometimes used for this purpose. The significance of the towers in relation to missile activity cannot be determined. The existence of the towers is noted here with the anticipation that later information may determine their significance. 9/

B. Military Construction Units

It is not possible to determine the number of construction workers involved in the construction activity, but the magnitude of the effort is suggested by the number of military construction workers reported in the area. Estimated contingents of 1,000 men (Area A), 200 men (Subarea A_1), 300 men (Area C), 100 men (Area C), and 500 men (Area A or D) have been reported by different informants, but this information may involve some double reporting. Moreover, no reports have been received on the number of laborers in Area B. At least one and possibly two construction units arrived in the area from the interior of the USSR, and one of the construction units allegedly was an artillery unit originally stationed at Sverdlovsk (56°51' N - 60°36' E). The soldiers wore black shoulderboards,*** and the members of the other possible unit, which arrived in December 1958, wore khaki uniforms with no shoulderboards.

---

* For a description of similar towers in the vicinity of Taurage, see Appendix A, 8, p. 33, below.

** The height of 200 m, given by the source, is believed to be unreasonably high.

*** All artillery troops wear black shoulderboards.

C. Airfield Modernization

Rumors of airfield construction have persisted, but it is believed that the turf-surfaced airfield north of Taurage can be modernized to satisfy the requirements of a missile deployment site and that this modernization has been the basis for the rumors of airfield construction.

Surveying and grading work began on the airfield in the spring of 1958. Whereas only an occasional small single-engine aircraft was observed on the airfield until early 1959, at that time twin-engine aircraft of an unidentified type began to be observed. Grading activity may still have been in progress as late as January 1960.

The areas northwest and south of Taurage also have been rumored to be sites for a new airfield. These areas, although they cannot be completely ruled out, are predominantly identified with missile activity.

IV. Transportation

It is expected that any missile systems deployed in the Taurage area of the Lithuanian SSR will be road mobile with railroad facilities at the primary support bases. Both railroad and road transportation facilities are adequate for the deployment of missiles in the area.

The area is served by one rail line -- the main line from Sovetsk to the Siauliai (55°56' N - 23°19' E) area. In addition, a rail spur is reported to have been constructed, but this report has not been confirmed. (Rail spurs have been reported at five locations in the area by nine different people.)

Two hard-surfaced two-lane highways serve the Taurage area -- one from Taurage to the Sovetsk and Pagegiai area, the other from Pagegiai to Jurbarkas through Viesvile and Smalininkai. Between these highways, there appears to have been under construction or repair since about 1957 a network of roads and bridges that may link all of the areas of activity in the Taurage vicinity. A new hard-surfaced road (including a new bridge across the Jura River and another bridge possibly across the Sesuvis River) has been constructed along part of the way between Area A and Area B. This road connects with an existing road that was hard surfaced for at least part of the remaining distance between the two areas. If the

remaining distance has been hard surfaced, a direct hard-surfaced road links the two areas.

A new north-south road appears to have been constructed between Areas C and A. This road, if extended a short distance beyond that reported, would connect with the improved road from Area B, thus linking Areas A, B, and C. Adequate road, and possibly railroad, connections exist between Area B and the other areas for the transport of missiles, missile fuels, and warheads.

An existing hard-surfaced two-lane road connects Areas C and D, whereas improvements or a new parallel hard-surfaced road have been reported in progress on the Taurage-Jurbarkas road that links Areas A and D. These roads provide, if all reported and suspected improvements are made, a circular road network through all areas of activity in the complex that would be completely adequate for the deployment of road mobile missiles in the area.

V. Missile Sightings

Alleged guided missiles have been observed in the Taurage area of the Lithuanian SSR by 11 informants, giving a total of 25 to 32 observations. (For the size and description of these missiles, see the table.*) There were 10 informants who reported the observation of possible surface-to-surface missiles and one sighting of a possible SAM missile.** The sighting of three possible types of surface-to-surface missiles -- that is, the Shyster, the SS-2, or the SS-3 -- and short-range unguided rockets lends some support to the hypothesis that the Taurage complex is a central support facility for units equipped with missiles of varying ranges.

The possible Shyster missiles were observed by four informants during the period December 1959 - January 1960 and once in May 1960. Two different informants each reported observing approximately 80 missiles being transported in the direction of Area B in December 1959 and January 1960, respectively. On approximately seven occasions during December 1959 - January 1960, one informant observed convoys consisting of approximately 12 prime movers towing missiles 15 to 17 m

* The table follows on p. 16.

** See item 9 in the table, p. 18, below.

long on trailers. The other informant reported that during December 1959 he observed an average of four convoys a week, each with 20 YA-12 tracked prime movers towing Shyster missiles on trailers moving in the same direction on the same road. On the basis of the number of alleged missiles reported, the proximity of dates of observation, and locales, it would appear possible that both individuals observed the same convoys. This double observation also strengthens the probability that the convoys were missile convoys even though an unusually large number of missiles was reported. The number of missiles, the alleged construction activity in the suspected area in the fall of 1959, the fact that one informant reported that the prime movers were observed traveling south without the trailers several hours later, and local hearsay concerning the storage of missiles in the area all tend to highlight Area B as a possible storage site for missiles. 10/

There were two or three observations of possible SS-2 or SS-3 missiles. The missiles were observed in April 1959, October 1959, and possibly again in May 1960. It is possible, however, that the latter missile was actually a Shyster. There were four sightings of short-range guided missiles or unguided rockets that occurred in May 1958, June or July 1959, August 1959, and May 1960.

In addition to the missile sightings contained in the table,* other objects, possibly missiles, have been reported, but insufficient information on them precludes positive identification. During March-July 1959, frequent night shipments of unidentified "machine parts" to the Taurage station were reported. These shipments were transloaded in security onto three-axle military trucks and taken to Area A. 11/ In June 1959, four special canvas-covered gondolas were observed at the railroad yard in Taurage. The cars had been normal metal four-axle gondolas 15 m long, but both ends had been extended by additional metal structures approximately 1.5 m long at the top, so that the overall length was 18 m. The cars were unloaded at night by a military unit under strict security, and the contents were immediately carried off. 12/ In September-October 1959, three wooden crates 12 by 2.5 by 2 m rumored to contain rockets were transported on sledges from the Taurage railroad station toward Area A. One crate was mounted on two sledges. 13/ A similar shipment was observed in April 1960, when four heavy wooden boxes 10 to 12 by 3 by 2 m were observed on the

* P. 16, below.

Taurage-Jurbarkas road. The boxes were transloaded onto six-axle trailers at the Taurage railroad station. 14/ During March 1960 and the first week in April 1960, three convoys were observed moving in the direction of Zygaiciai (Area B). The convoys traveled at night and returned the next morning. Each convoy consisted of 15 to 20 M-1950 tracked prime movers with their large cargo space covered with a tarpaulin. Each prime mover towed an eight-wheel trailer about 8 m long carrying a heavy load consisting of irregularly shaped pieces. 15/

VI. Site Configuration

It is possible only to conjecture about the over-all site configuration on the basis of unevaluated, incomplete information. For example, rumors of activity in nuclear weapons, although few in number, are numerically weighted in favor of the southern areas of the site -- that is, Areas C and D. Hearsay information suggests that Area B is actually a storage location for missiles. This point of view is supported somewhat by the number of alleged Shyster missiles, approximately 80 (or 160), transported in the direction of Area B in December 1959 or January 1960. The prime movers that towed the missile trailers returned, heading in the opposite direction several hours later without the missiles and trailers.

If any credence could be given to these rumors, it would be possible to make a very tenuous description of the configuration of the site to include launching sites (Area A) flanked by missile storage-assembly (Area B) and warhead storage (Area C or D) facilities interconnected by a road network and possibly a rail line between the missile storage and launching site complexes. A new fuel pipeline is reported to have been constructed from the Sovetsk-Pagegiai area in the direction of Area B.* If the purpose of the pipeline were to supply fuel to Area B, the existence of the pipeline would indicate that fuel is stored in the same general area as the missiles. The fuel requirement for a missile site, however, generally is not considered great enough to require a separate pipeline.

A second possible site configuration would have the missiles, missile fuel, and warheads being stored in one general support area and the other specific areas of activity actually being launching sites. The orientation of Areas A, C, and D along a line perpendicular to the southwest launching azimuth for targets in West Germany suggests that these areas may be launching positions.

* For a discussion of this pipeline, see Appendix A, 7, p. 32, below.

Table

Description and Locations of Alleged Missiles Sighted in the Taurage Area of the Lithuanian SSR a/*
May 1958 Through May 1960

Item	Date	Length b/	Diameter b/	Quantity	Location	Additional Description	Interpretation
1	May 1960 c/	5 to 6 meters (m); nose cone, 1.5 to 2 m	70 centimeters (cm); nose cone, 80 to 90 cm	5 to 6 units	Miekiten (possibly Mikytai), moving in the direction of Taurage on the Sovetsk-Taurage highway	Each of five or six trucks of the ZIS-151 type carried one tarpaulin-covered object believed to be a missile. The objects had cylindrically shaped bodies with pointed bulging nose cones. The objects had been placed on loading platforms in slightly oblique positions, and the pointed nose cones extended a little forward over the cabs.	The object was similar in configuration to the Garden Spider but shorter
2	May 1960 d/	12 to 16 m	Unknown	Unknown	Taurage, moving on the road south from Taurage toward Area A	The missile was transported in convoys of two to three tractor-trailer units with a command car front and rear. The missile was carried on two flat bed trailers, each with four wheels front and rear, and was covered with a tarpaulin supported by braces.	The missiles may have been the Shyster without nose cones, the SS-2, or SS-3. The trailer, however, differed from the known Shyster trailer and from the suspected SS-2 and SS-3 trailers.
3	January 1960 e/	20 to 30 m f/	1.5 to 2 m	1 unit	Immediately south of the road junction at Mikytai, moving north along the Sovetsk-Taurage road	The "object" was compared to "a chimney, coming to a point at one end." It was covered with a tarpaulin and was hauled on a long, low trailer with several axles. It was pulled by three tractors of the Stalinets-80 type. The object extended beyond the rear of the trailer about 3 m.	The object was compatible in length and diameter with the Shyster, but three tractors are not required to tow the Shyster and its trailer.
4	December through January 1960 g/	15 to 17 m	Unknown	Seven convoys, each with 12 prime movers towing trailers with missiles	Eisraviskiai, moving from Pagegiai to Sartininkai, to Mel'dekvirzhe, and into a forest located between the villages of Aukstupiai, Dabrupine, and Trukiske	The missile was on an approximately 15-m long three-axle special trailer pulled by a prime mover.	The missiles were compatible with the Shyster, the SS-2, and the SS-3. There is a strong possibility that this and the next sighting (item 5) were the same type of missile if not the same convoys.

* Footnotes for the table follow on p. 19.

Table

Description and Locations of Alleged Missiles Sighted in the Taurage Area of the Lithuanian SSR a/
May 1958 Through May 1960
(Continued)

Item	Date	Length b/	Diameter b/	Quantity	Location	Additional Description	Interpretation
5	December 1959 h/	Shyster		Four convoys a week during December 1959, each with approximately 20 missiles	Mantvilaiciai, moving north. The destination of the convoy was, according to hearsay, a wooded area northeast of Zygaiciai.	YA-12 prime movers were towing Shyster missiles with transport trailers. Several hours after arrival the prime movers would return moving south, without the trailers.	The source document referred to these missiles as Shyster missiles.
6	October 1959 i/	10 to 12 m	1.5 to 1.6 m maximum	5 units	Lumpenai, moving in the direction of Viesvile on the Pagegiai-Viesvile road	Each missile had two or three parallelogram-shaped stabilizers 1.5 to 2 m long. There was one missile on each of five carriers. The carriers were platform trailers 8 m long on two double-axle swivel trucks with rubber tire dual wheels. Each carrier was pulled by one 10-ton j/ or 15-ton MAZ type of truck with a metal body and three axles, with dual wheels on the rear axles. The missiles were observed in a convoy that was headed by one GAZ-69 truck with a whip type of antenna at the rear, occupied by two officers and two soldiers in Soviet uniforms with black shoulderboards. An unknown number of GAZ-63 and ZIS-151 trucks followed. Some of the ZIS trucks carried canvas-covered box-shaped objects, approximately 2.5 by 1.5 m. These trucks had red flags on the roof of the cab, signifying "Dangerous Load."	The missiles may have been SS-2 missiles.

Table

Description and Locations of Alleged Missiles Sighted in the Taurage Area of the Lithuanian SSR a/
May 1958 Through May 1960
(Continued)

Item	Date	Length b/	Diameter b/	Quantity	Location	Additional Description	Interpretation
7	August 1959 k/	6 to 8 m	Unknown	Unknown	Northern outskirts of Taurage	Objects were observed at night on heavy trucks. A Soviet senior lieutenant billeted in the same house is reported to have told the informant that these objects were Soviet rockets. Some of the coverings left portions exposed to view. Each object is supposed to have looked like a large shell with a pointed nose and is supposed to have been fitted with fins at the rear end.	Possibly short-range unguided rockets
8	June through July 1959 l/	6 to 8 m	Unknown	12 units	On the road between Sovetsk and Taurage	Objects were observed during maneuvers. There were six military trucks with one-axle trailers, each loaded with two cigar-shaped objects.	Possibly short-range unguided rockets
9	June 1959 m/	10 m	Unknown	3 units	Northwest of Taurage, moving from Taurage towards the Soviet artillery troop barracks	According to the sketch supplied by the informant, the object had two fins about one-third of the way from the rear end. The object was covered by a tarpaulin which was pulled tightly so that the observation could be made. What appeared to be an armored fighting vehicle or a fully tracked prime mover towed a three-axle trailer of lattice girder construction.	Possibly the Guideline
10	April 1959 n/	12 to 15 m	0.65 to - 0.80 m	1 unit	Taurage moving in the direction of the railroad station	The object was covered. The informant was unable to identify stabilizers, if there were any. The object was transported on a long two-axle trailer pulled by a heavy Soviet truck.	The object was possibly an SS-2 or an SS-3 missile.

Table

Description and Locations of Alleged Missiles Sighted in the Taurage Area of the Lithuanian SSR a/ May 1958 Through May 1960 (Continued)

Item	Date	Length b/	Diameter b/	Quantity	Location	Additional Description	Interpretation
11	May 1958 o/	8 to 9 m	Approximately 1 m	6 to 7 units	In the forest of Betenai (possibly Bitenai) (55°04' N - 22°03' E)	The alleged missiles were observed as part of large maneuvers by the Soviet Army. The front of each transport vehicle looked like an old Studebaker truck. Vehicles had a cabin for three drivers, a common open loading platform, and very large wheels. The wheel arrangement was unknown. Behind the truck was a trailer that was approximately 6 to 8 m long, that had very large wheels, and that was of unknown width. The missile rested with its front section on the loading platform of the truck and its other parts on the trailer and protruding for approximately 1 m from the rear of the trailer.	The missiles were possibly short-range unguided rockets.

a. For the locations of sightings, see the map, Figure 3, inside back cover.
b. Approximate lengths and diameters of several Soviet missiles for purposes of comparison are as follows:

	Over-All Length (Meters)	Diameter (Meters)
SS-4 (700 nm) (Shyster)	20	1.6
SS-3 (300 nm)	16	1.7
SS-2 (150 nm)	14	1.7
SS-1 (75 nm) (Scud)	9.8	0.85
Garden Spider (16 nm)	8.9	0.49
SA-2 (Guideline)	10.8	0.5

c. 16/
d. 17/
e. 18/
f. The informant was uncertain about the length.
g. 19/
h. 20/
i. 21/
j. Tonnages are given in metric tons throughout this table.
k. 22/
l. 23/
m. 24/
n. 25/
o. 26/

BLANK PAGE

APPENDIX A

SUMMARY OF EVIDENCE ON THE TAURAGE AREA OF THE LITHUANIAN SSR AS A LAUNCHING SITE FOR GUIDED MISSILES 1958 THROUGH JUNE 1960

1. General

During 1958, rumors began to circulate in the Taurage area of the Lithuanian SSR that an airfield, guided missile launching site, or nuclear weapons site would be constructed south of Taurage in the forested area bounded by Jurbarkas and Viesvile on the southeast and southwest, respectively; the Neman (Memel) River on the south, and Taurage on the north. Late in 1958 and early in 1959 an additional site located in a wooded area approximately 7 km northwest of Taurage (Area B) was reported under construction.

As early as the spring of 1958, posters appeared in villages in the Taurage area recruiting workers for a military construction project in the forest between Siline and Jurbarkas. 27/ Surveying activities began in 1958 and probably were completed by March 1959. 28/ Clearing the land, shipments of construction materials, and preparatory construction began in certain areas in the summer and fall of 1958. Available evidence, however, suggests that full-scale construction in all areas did not get underway until the spring of 1959. 29/

During July 1959 and February - May 1960, at least two helicopters were rumored to be active in the area. The exact significance of this activity is unknown. 30/

Construction machinery; excavators; pile drivers and prime movers; and considerable tonnages of construction materials such as cement, sand, gravel, bricks, timber, steel rods, and H-shaped girders (approximately 10 m long and having numerous holes or apertures large enough for a man to poke his head through); lattice types of steel girders 10 to 12 m long; window and door frames; and precast concrete structurals began to arrive in the area. The concrete structurals were variously described as follows:

a. Prefabricated concrete slabs 2 by 1.2 by 0.6 m with three slabs on each 5-ton ZIS type of truck.
b. Reinforced concrete blocks 1.2 by 1.2 by 0.4 m.
c. Reinforced concrete beams 5 by 1.2 by 0.4 m.
d. T-shaped reinforced concrete beams 6 to 8 by 0.5 m.
e. Heavy precast concrete parts approximately 0.8 by 1 by 0.6 m.
f. Concrete piles 10 m long.
g. Concrete poles 25 by 25 centimeters (cm) by 12 m.
h. Concrete or reinforced concrete cubes approximately 90 by 60 cm.
i. Reinforced triangular beams 80 by 80 cm by 4.5 m.
j. Concrete slabs 10 to 12 cm thick and of varying lengths.
k. Concrete slabs 20 cm thick.
l. Concrete pipes 15 m long.
m. Concrete pipes 1.5 by 1.5 m by 10 cm.
n. Concrete sections with horseshoe profile 8 to 10 m wide, 2 m high, and 1.5 m long with a wall thickness of 15 to 20 cm.
o. Concrete members 6 m long, 3 m wide, 30 to 50 cm thick, and curved to form practically a quadrant.

The cubes and triangular beams reportedly were used for the construction of tunnels. 31/

Observations of the restricted areas have been made peripherally, with two notable exceptions. In June 1959, one informant observed an alleged missile site on the south side of the Pagegiai-Viesvile road, west of Viesvile (see Area C*). The area was 2 km long, and its width was unknown. Approximately 10 to 12 bunkers in various stages of completion were observed. The bunkers were spaced at least 100 m apart and were arranged in a zigzag line. Each bunker was of reinforced concrete construction about 3 m wide and 6 m long, with curved roofs extending 2 m above the ground level. On the west sides the bunkers had openings (slots) through which protruded canvas-covered objects 8 to 10 m long. The objects were elevated 30 to 40 degrees and pointed west. Three radio trucks were parked a few meters north of the bunkers. Antennas were not observed. Several Soviet officers, some of them in Air Force uniforms and the others in uniforms of various troop branches, were noted within the site. Approximately 100 military laborers were engaged in the construction of the bunkers. The excavating work was

* III, A, 3, p. 8, above.

done by three power shovels. 32/ Another informant, a resident of the area until October 1959, reported hearsay information that the construction of "nuclear weapons bunkers" in the same area was in progress. 33/

Another site in Subarea A_1 (see Figure 2*) was described as being approximately 1 sq km and as being surrounded by two barbed wire fences with a plowed strip 2 m wide between the fences (see No. 1 in Figure 2). Guard towers approximately 5 m high were erected 50 to 100 m apart on top of the fences (see No. 2 in Figure 2). A 50-to-100-m wooded strip surrounded a level concrete area approximately 1,000 by 800 m. On the west side of the concrete area, two concrete buildings were being constructed. A tunnel (see No. 5 in Figure 2) approximately 5 m wide was being built from under the concrete area toward the north. The incomplete portion of this tunnel, being dug by two ditching machines, extended out of the wooded area for approximately 0.5 km. The tunnel had a concrete floor, and the walls were being built from half elliptical concrete forms approximately 1 m wide. Approximately 200 Soviet soldiers were reported to be working in the area. 34/

Other structures allegedly being constructed in the restricted areas are underground A-bomb storage and missile launching facilities, concrete structures 6 m thick, underground installations for an airfield or installations in connection with unknown atomic devices, excavations with concrete foundation walls, concrete building, very large and deep pits, concrete bunkers to be used as storage bunkers for military equipment, and a huge concrete installation partly underground. 35/ As of May 1960, construction work was still in progress in the area, although there had been reports that construction was completed as early as the fall of 1959. 36/

2. Airfield Construction

The construction sites have been variously referred to as airfields, missile launching sites, and nuclear weapons storage areas. During 1958 and early in 1959 the activity was frequently referred to as airfield construction. According to hearsay, the site (Area A) was to become an airfield with underground installations. One person

* Following p. 8, above.

also said that the site might be an installation connected with unknown atomic devices. Other reports have stated that both a missile base and an airfield were being constructed. 37/

There is a turf-surfaced landing strip immediately north of the outskirts of Taurage, between the Taurage-Pagramantis (55°22' N - 22°14' E) road and the Jura River. The entire area of the airfield was reported to be approximately 1,500 m north-south and 500 to 600 m east-west. The landing strip reportedly is 600 by 400 m. Most reports have stated that the field was used almost exclusively by a Mule (Po-2) type of aircraft that landed with the mail several times a week. One Fagot (MIG-15) aircraft was reported to have been sighted landing on the strip in the summer of 1957. In the spring of 1959, aircraft stationed on the airfield were reported for the first time. Ten or 12 twin-engine conventional aircraft were observed on the field in March 1959. Twin-engine aircraft also were observed landing on the field in early 1959. Several three-engine conventional aircraft were observed on the field during the same time. These aircraft, however, do not fit the description of any known aircraft in use in the USSR. It is believed that these aircraft were the same as the twin-engine aircraft. 38/

Electronic devices have been observed at the field on many occasions. The most recent observations were made in April and May 1960, when a Knife Rest "A" (early warning), a Knife Rest "B" (early warning), and a mobile Fire Can (fire control) radar were observed. Other radar antennas similar to the Cross Fork (early warning), Dumbo (early warning), Token ground control intercept (GCI), and Gage (early warning) antennas and antennas not readily identifiable have been reported at various times in the vicinity of the airfield. 39/

Surveying and grading work began on the airfield in the spring of 1958. In the summer of 1958 a Taurage newspaper reportedly stated that the airfield was to be taken over by the Soviet Air Force and that a concrete runway was to be constructed. In May 1958, Soviet soldiers were engaged in soil moving operations. One person who left the area in January 1960 reports that several graders were always observed leveling ground on the field. 40/

There have been several reports stating that an airfield would be constructed northwest of Taurage (Area B). For the most part the

reports are based on the observation of surveyors in the area north of the Taurage-Sovetsk road and west of the Jura River. Possible explanations for the presence of military surveyors in this particular area are (a) geodetic surveying for the launching sites, (b) a rumored rail spur from the area of the Pozeruonai railroad station to Area B, and/or (c) a possible new road or improvement of the existing one between the Pozeruonai station area and Area B. 41/

It would appear that rumors concerning airfield construction have some basis in fact but that the airfield concerned is actually the civilian turf-surfaced airfield north of Taurage which is being modernized for use by the military. The areas south and northwest of Taurage, although they cannot be completely ruled out as sites for airfields, are predominantly identified with missile activity.

3. Construction Activities Associated with Nuclear Weapons

Nine informants have reported rumors in the area about construction activity associated with nuclear weapons. Of the nine references, one was a general reference to an atomic missile site being constructed between Taurage and Pagegiai. Five of the remaining eight references locate the nuclear weapons activity in the Viesvile-Smalininkai-Jurbarkas area (see Areas C and D*). The other three references are to construction activity associated with "atomic rockets" and to a missile launching site with storage facilities for A-bombs and "A-heads" in Area A. It must be kept in mind, however, that the references to nuclear weapons activity in the Viesvile-Smalininkai-Jurbarkas area constitute less than one-third of the total number of references concerning these specific areas. (The other references refer to missile and/or airfield construction.) 42/

4. Military Construction Units

The size of the labor force in the Taurage area cannot be accurately determined. Only seven informants have provided estimates of the number of personnel involved at construction sites. From these informants it is possible only to get an idea of the size of the construction effort underway in the area. In the spring of 1958, posters appeared in local villages stating that 320 workers were needed for a

* III, A, 3 and 4, pp. 8 and 9, respectively, above.

military construction project in the forest between Siline and Jurbarkas. 43/ It is estimated that since the spring of 1959, 400 to 500 Soviet construction troops were quartered in knockdown wooden barracks in an enclosed area behind the Taurage railroad station. 44/ It has been reported that during September 1958 and March 1959 an estimate of 1,000 Soviet soldiers worked on the repair of a road within the construction site located southeast of Taurage between Kangailai (55°12' N - 22°17' E) and Sakaline (Area A). 45/ Approximately 200 Soviet soldiers were reported to be working at the site in Subarea A_1. 46/

vidu ..... 47/ In June 1959, approximately 100 military laborers were observed constructing bunkers west of Viesvile, south of the Pagegiai-Viesvile road. 48/ During 1959, approximately 500 Soviet soldiers were engaged in extensive construction activities in the area between Area A and Area D. 49/

A construction unit arrived from the interior of the USSR in December 1958 and was placed in barracks southwest of Taurage. By the end of March 1959 it was reported that the greatest part of the construction unit was transferred into the forest -- that is, to the construction site. The soldiers of the construction unit wore khaki uniforms but had no shoulderboards. 50/ A Soviet construction battalion was billeted in tents around a construction site in Area A during 1959. 51/ described construction workers in the Viesvile area as having no insignia. 52/ In March 1960 an informant met two Soviet soldiers on a bus trip from Kaunas to his home in Lumpenai (Lompa) (55°07' N - 22°02' E). Both soldiers were in Soviet Army uniforms with black shoulderboards and allegedly belonged to an artillery unit originally stationed at Sverdlovsk (56°51' N - 60°36' E). were billeted in the forest area north of Viesvile where they were engaged in excavation work at a large construction site. The soldiers left the bus at Viesvile, where they were picked up by a military truck. 53/

5. Military Personnel

Artillery troops have been reported in the Taurage area since a heavy artillery unit was transferred there in 1956-57 from Brandenburg and East Berlin and garrisoned northwest and southwest of Taurage. The garrison northwest of Taurage, called "Voyen

Gorodok 20" (Cantonment 20), allegedly was the largest, with approximately 1,200 troops. (This garrison also has been reported to house both infantry and antiaircraft troops.) The garrison southwest of the town, called "Voyen Gorodok 19," had approximately 800 troops in September 1958. Equipment of this unit was reported to include about 20 Katyusha rocket launchers (range 9,000 m).

Equipment of the unit garrisoned northwest of Taurage was reported to include approximately 18 rocket launchers mounted on four-wheel trailers towed by type M-1950 prime movers. 54/ Missiles have been associated with the troops northwest of Taurage as the result of four other observations. On three occasions in June 1959 an informant observed a three-axle flat trailer of lattice girder construction being towed by an armored fighting vehicle or a fully tracked prime mover from Taurage in the direction of the artillery barracks. The outline of an object 10 m long was discernible through a tarpaulin. According to the sketch supplied by the informant, the object, an alleged rocket, had two fins about one-third of the distance from the rear end. 55/ (The object described is similar to the Guideline SA-2 missile.) In April 1959, another informant observed a two-axle trailer being towed by a heavy Soviet Army truck from the barracks in the direction of the Taurage railroad station. A cylindrical object 12 to 15 m long and 0.65 to 0.80 m in diameter raised slightly at an angle on one end was on the trailer. Stabilizers, if there were any, were not identified, because of a tarpaulin cover. 56/

There is some evidence either that the artillery unit was reequipped or that at least part of the artillery troops were transferred from Taurage early in 1959 and replaced by other artillery troops soon thereafter. One new unit, however, actually may have been a construction unit, for it was reported to have been equipped with an inordinate number of construction machines, dredging machines, and bulldozers. 57/

Until early in 1959 the artillery troops were almost the only troops identified in the immediate vicinity of Taurage. Beginning early in 1959, Air Force, Army, and Navy personnel and service troops were reported in the area, thus indicating an increased interest in Taurage on the part of the Soviet military. During January-February 1959, many Soviet Air Force officers and soldiers of technical units wearing Army, Navy, and Air Force uniforms were observed in the streets of Taurage. During July-September 1959, Air Force troops and officers

were again reported in Taurage. During the latter part of 1959 and until February 1960, naval personnel with "BF" (probably Baltic Fleet) on their shoulderboards were observed in the Viesvile area. Army personnel in the same area wore shoulderboards with a replica of an armored tank on them. In a construction site near Viesvile (see Area C), Soviet officers in Air Force uniforms and officers of other branches of service were observed in June 1959. In October 1959, soldiers in Soviet Army uniforms with black shoulderboards were observed accompanying an alleged missile being transported on the Pagegiai-Viesvile road. 58/

6. Transportation Facilities

Rail access to the Taurage area is provided by one Soviet standard-gauge line, the Sovetsk-Pagegiai-Taurage-Siauliai area line. A pre-World War II narrow-gauge rail line connected Pagegiai, Viesvile, and Smalininkai, but available evidence indicates that this rail line no longer exists.

A depot area near the Taurage railroad station is used for storing construction materials for the construction project. A rail spur leading into the area from the Taurage station furnishes off-loading capability. An engineering battalion of approximately 400 to 500 men is stationed at the depot. Construction materials shipped to the construction areas northwest and south of Taurage are transloaded in this area and trucked to the construction sites, and materials for the sites in the Viesvile and Smalininkai areas appear to be transloaded to trucks at Pagegiai or trucked from Jurbarkas. 59/

Alleged missiles have been observed moving from the vicinity of Pagegiai in the general direction of both Taurage and Viesvile. If these alleged missiles were transloaded at Pagegiai, such transloading might indicate that Pagegiai will play an important role in logistical support for the entire area, especially in the early stages, for it is approximately equidistant from most of the suspect sites, is served by two rail lines (Sovetsk-Siauliai and Sovetsk-Klaipeda), and has a large military POL depot.

Nine different informants have reported the construction of rail spurs in the Taurage area. There have been no references to the construction of a rail spur into the Viesvile-Smalininkai areas, a fact

which may indicate either that access to the area will be only by road or that one of the rumored lines from Taurage will extend beyond Area A to connect with Areas C and D.

Rail spurs have been rumored to be located both north and south of the main rail line that could serve both Areas A and B. In July 1959 a rail siding supposedly was observed from the Taurage railroad station south to the rumored guided missile site. No traffic was observed on the siding. At the railroad station, however, the main line of the railroad turns south, and a rail spur continues west for a short distance into an ordnance yard. It is possible that the reported rail spur is actually the main line. 60/ Two people, however, have reported a rail spur being constructed during 1959 from the Taurage railroad station toward the east. One informant reports that the spur ends in the Stragute area, whereas the other informant reports that it was constructed through Erzvilkas to Vadzgirys. 61/ According to hearsay gathered during January-September 1959, a great number of freight trains traveled into unknown forest terrain between Taurage and Pagegiai on an obviously newly constructed rail spur. One informant, however, reports that as of March 1959 he observed no rail connection into the vicinity of Sakaline and Pameziai in Area A.

A rail siding was observed under construction between Joniske (55°17' N - 22°23' E) and Bernotiske (55°16' N - 22°22' E) during the summer of 1959. The construction work was done by Soviet soldiers, and it was assumed by the informant that the spur might lead to the construction site. It is not known on which side of the main line the siding was located. Another siding, possibly the same one, reportedly was built in the Joniske area (approximate location, 55°16' N - 22°25' E) in 1957. The siding was along the north side of the main rail line and entered a heavily wooded area, rejoining the main line approximately 800 m southwest of its point of departure. The siding was not supposed to be used except in an emergency. 62/ As described, the purpose of this siding cannot be definitely linked with identified sites of suspected missile activity in the area. If this siding leads to a rail spur connecting Area B with the main rail line, there appear to be more direct, and equally feasible, routes that could have been used. If the siding is in some way connected with the areas south of Taurage, there again appear to be routes that would be as direct, no less difficult, and closer to the sites north of Taurage, on the assumption that a linking of the areas was desired.

Another rail spur has been mentioned in connection with Area B. According to information indirectly acquired from a member of a surveying team in mid-1959, a rail spur was to be constructed from Pozeruonai station in a straight line to an airfield that was to be constructed 7 to 8 km northwest of Taurage. A planned siding was reported on another occasion from the freight yard southwest of Taurage, which is near Pozeruonai station, to the military barracks in the vicinity. The likely existence of construction activity in the vicinity also is supported by a report that Pozeruonai station, which was destroyed during World War II, was being reconstructed in 1959. If a spur line were being constructed, the rumored missile support area (Area B) north of Taurage would be a logical area to be served by the spur. The initial leg of the spur line could pass in the vicinity of the barracks and still be a direct line to Area B, following the existing road between the two points. 63/

In May 1958, soil moving operations were observed on the airfield immediately north of Taurage, and it was rumored that rail sidings would be constructed to connect the airfield with the main line. 64/ Road and bridge construction in the area was reported as early as 1957, when the Taurage-Sakaline-Jurbarkas road was fortified with crushed stone by civilian contractors. In May 1957, construction reportedly began on a new concrete bridge over the Sesuvis River on this same road, but two informants, one of whom left the area in April 1959 and one in May 1960, report that the river was spanned at this point by a wooden structure which was built after World War II and which had a weight limit of 25 tons. Repair of the road as far as Kangailai was again reported to have been completed in December 1958. It was estimated that 1,000 Soviet soldiers worked on the repair of the road within the construction site. As late as November 1959 a new asphalt surface road 10 m wide was reported to be under construction from the barracks southwest of Taurage to the construction site. 65/

There have been four reports of the construction of road bridges across the Jura River. One report stated that a road bridge which was over the Jura River between Taurage and Pozeruonai and which had been damaged during the war was replaced by a new bridge which was completed in May 1957. A wooden bridge reportedly was begun in the autumn of 1958 and completed in July-August 1959. A new bridge was reported to have been built northwest of Taurage in the

fall of 1959 on a new concrete road that connects Area B with the Taurage-Silale road, 2 km north of Pagramantis. Two concrete bridges reportedly were being constructed over the Jura River in the spring of 1959. One bridge was built by military troops on the southwestern perimeter of Taurage. This bridge carried all traffic to and from the artillery troops barracks in the area. The other concrete bridge was constructed approximately 2 km southwest of Taurage by Soviet engineering units. This bridge was out of bounds to civilian traffic. It was rumored locally that this bridge was to be used for military traffic to and from Area A. 66/

A road using the bridge or bridges would tie into the new or repaired road from Taurage to the construction site (Area A) via the bridge over the Sesuvis River. Such a new road was reported to be under construction in February 1960. The road branched off the main Sovetsk-Taurage road, approximately 3 km southwest of Taurage, and allegedly led to Area A via the village of Dauglaukis ($55^{\circ}11'$ N - $22^{\circ}13'$ E). If extended in a northwesterly direction, this road would form an almost straight line to the suspected missile support area (Area B) northwest of Taurage.

One new road (and possibly two roads) has been reported in the Viesvile area. This new road, which was constructed in the fall of 1958, crosses the Pagegiai-Viesvile road at coordinates $55^{\circ}05'$ N - $22^{\circ}22'$ E and connects Areas A and C. A sign at the entrance of the road to Area C reads, "Stop, Entrance Prohibited." If this road were extended a short distance into Area A beyond that reported, it would connect with the improved road from Area B, linking Areas A, B, and C. Another new road intersects the Pagegiai-Viesvile road at coordinates $55^{\circ}06'$ N - $22^{\circ}19'$ E and extends south into Area C. An existing hard-surfaced two-lane road connects Areas C and D, whereas improvements or a new parallel hard-surfaced road have been reported in progress on the Taurage-Jurbarkas road that links Areas A and D. These roads provide, if all reported and suspected improvements are made, a circular network of roads through all areas of activity in the complex. 67/

An informant stated that the electricity works had a capacity of only 185 kilowatts even though connected with an overhead power line from Sovetsk. Electric current from Sovetsk

was taken by underground cable as far as Pagegiai and from there by overhead line to Taurage. Between Pagegiai and Taurage, 28 substations were connected.

The installation of electric power and telephone lines to the construction sites is based only on rumor. Conflicting reports have stated that cable trenches have been dug from Taurage to the construction area west of Viesvile for either a power or telephone line, that an overhead telephone line was erected from Taurage to either Area A or Area D, that a new electric power line between Kaunas and Taurage was to be completed in November 1959, that a three-line high-tension cable supported by concrete posts 30 m high was constructed through Pagramantis and Taurage to the restricted area east of Siline in the fall of 1959, and that electric power was supposed to have been installed in the restricted area south of Taurage during February-May 1959. The informant, however, did not know of any power lines into the area. Possible electrical switchgear or transformers were transported into the area in June 1959. According to hearsay, three or four transports arrived from the USSR with "steel construction" loaded on well wagons that was then transferred to low-slung vehicles (Tieflader) at night and taken away on the road to Jurbarkas. 68/

7. Fuel Supply

A fuel pipeline was constructed in the direction of Area B (called a storage area by local residents) in the fall of 1959. The informant was unable to give a point of origin for the pipeline. According to the informant, however, the pipeline branched off from another pipeline that paralleled the Sovetsk-Taurage road for some distance. The point at which the pipeline branched off is in the immediate vicinity of Pagegiai, where there is a military POL depot. The pipeline was approximately 20 cm in diameter and was buried about 25 cm under the ground. There was a pipeline pumping station about midway between Pagegiai and the restricted area. 69/

During 1959 a Soviet labor battalion with an estimated strength of 300 men, stationed in a barracks compound at the northern border of Pagegiai, had a huge stockpile of aluminum pipes about 6 m long and 15 to 20 cm in diameter. The stockpile was increased in the spring of 1959. The labor battalion was trained in laying a pipeline from Pagegiai to Kaliningrad. An average of 25 km of pipeline was laid

each day, and small pumping or sucking stations were installed at 2 to 3 km intervals along the line. 70/

A possible explanation for the reported pipeline in the direction of Area B is given by an informant who reports that he participated in the laying of the southern sector of a temporary POL pipeline from Sovetsk to Riga during June-July 1959. The pipeline was dismantled after pressure tests. This pipeline passed to the north of Taurage and possibly is the pipeline reported as serving Area B. 71/

The POL depot at Pagegiai has been linked with the missile construction activity in only one other instance. Between 15 May 1959 and 15 June 1959 eight railroad tank cars that were four-axle types with one dome in the center were observed to be parked on the rail spur at the POL depot. Each tank was painted white and dark brown alternately in broad vertical stripes and was marked with a skull in red paint on the front and rear. [redacted] the tanks contained a red liquid causing caustic pains when applied to human skin. According to the same informant, tank trucks traveled at night between the depot and a guided missile base under construction in the Viesvile Forest and between the depot and the Sovetsk airfield. 72/

8. Electronics Facilities

A check shows no evidence of the SAM-associated Spoon Rest or Fruit Set radars in the vicinity of Taurage. The closest Spoon Rest radars are at Vil'nyus (54°41' N - 25°19' E), Kaliningrad, Klaipeda (55°43' N - 21°07' E), Liepaya (56°31' N - 21°01' E), Riga (56°57' N - 24°06' E), and Ventspils (57°24' N - 21°31' E). Fruit Set radar signals have been received only from the Kaliningrad area. 73/

Electronic facilities have been reported at the Taurage airfield* and also in the areas north, south, and southwest of Taurage. In mid-1957 an electronic installation was reported approximately 2 km north of Taurage along the Taurage-Pagramantis road and approximately

* For a discussion of construction at the Taurage airfield, see 2, p. 23, above.

500 m east of the road. The installation was called both an electronic warfare station and a jamming station. The installation included the following: equipment with Yagi aerials and elements mounted on a mast 10 m high and corresponding to the Dumbo - Knife Rest (early warning) family but without the rectangular mesh reflections of Dumbo*; a wooden hut approximately 8 to 10 m with a 12-m rotating spiral aerial protruding from the roof**; and a bowl-shaped, possibly rotating, antenna with a diameter of 2 m. Close to the antenna was an unidentified tractor and one unidentified closed truck. Although, in October 1959, a fairly large-scale military construction project was reported in this same vicinity, another informant reports that as of February 1960 no guided missile or rocket activities were observed in the general area. 74/

A radar site has been reported 1.5 to 2 km northeast of Taurage, approximately 500 m north of the Taurage-Siauliai road. The radar was identified as a Skew Feed (height finder) and was mounted on a steel tower approximately 8 to 10 m high. The screen, which was approximately 5 to 6 m high, also was observed revolving slowly. 75/

During June-October 1958 a military antenna site was located on a hill 500 to 700 m east-southeast of Zygaiciai. The installation consisted of two radio vans 10 to 15 m apart. Each van carried a vertical mast that was 4 to 5 m high and was topped by a horizontal bar. The horizontal bars of both vans were connected by several wires. During June-July 1958, about 10 vans were parked in the area. 76/

Approximately 15 round timber towers were reported to have been constructed in the summer and fall of 1959 in the area north of Taurage. (It was rumored that a total of 30 towers would be built.) The towers are described as approximately 30 m high and 10 m in diameter at the base. Round or square black objects approximately 40 to 50 cm in diameter were observed on the tops of the towers. The informant could give the approximate location of only four of the towers, as follows: (a) in the town of Ridikiske (55°20' N - 22°21' E), (b) 55°22' N - 22°18' E, (c) 55°21' N - 22°18' E, and (d) 55°19' N - 22°19' E. 77/ Other wooden trestle towers are located southwest of Taurage, near the town of Lauksargiai (55°13' N - 22°09' E).

* A wooden hut housed the ground equipment.

** From a distance the aerial appeared to be made of steel plates that had a pronounced sheen.

One tower, observed during December 1953 to October 1958, is located just east-northeast of Lauksargiai at coordinates 55°12'50" N - 22°10'50" E. The installation is located on the top of a hill 40 m high and consists of a timber trestle tower 20 m high at the top of which is affixed a T-shaped device formed by two rods 2 m long. Every spring, summer, and early fall, approximately six Soviet soldiers reportedly were housed in a tent pitched under the tower. People living near the device claimed that it was a meteorological station.

The other wooden tower in the vicinity was located at approximately 55°12' N - 22°10' E and was built in July-August 1959 by Soviet troops. It was 20 to 30 m high and had a wooden platform on its top. An unidentified apparatus was placed on the platform but was kept covered. A closed van truck was at the foot of the tower, and more than a dozen soldiers were always on the spot. The soldiers are reported to have said that the apparatus was for locating aircraft at a great distance and for guiding home friendly aircraft.

A third timber trestle tower is located at approximately 55°07' N - 22°05' E. It is 20 m high and has a platform on its top. It is not known whether or not the tower supported an antenna. 78/

Since 1958, other trestle-like structures were constructed in the vicinity of Baltupenai (55°04' N - 22°16' E), Zukai, Pagenaiciai (55°08' N - 22°16' E), Vezininkai (55°04' N - 22°10' E), and Sereiklaukis (55°03' N - 22°08' E). Each tower was tapering, had a round platform on its top, and had a low-pitched gable roof. A pole 40 to 60 cm high with a horizontal black board was on top of the roof.

There were two towers in the vicinity of Baltupenai: one 15 to 17 m high at approximately 55°03' N - 22°13' E and the second 20 to 30 m high at approximately 55°04' N - 22°15' E. At Pagenaiciai the tower was 50 m high and was located at approximately 55°07' N - 22°17' E. A tower 40 m high was located north of Vezininkai at approximately 55°05' N - 22°09' E and at Sereiklaukis, where the exact location of the tower was not known.

At Zukai there was a tower 40 to 45 m high at approximately 55°07' N - 22°15' E. Approximately 800 to 1,000 m east of the tower at Zukai there was a concrete base 2 by 1 by 0.5 m on top of which was a wooden tripod. A 60-cm vertical pole was on top of the tripod,

and the over-all height was 3 m. Another of these installations, minus the 40 m to 45 m tower, was located south of Zukai at approximately 55°06' N - 22°16' E. 79/

9. Security

Rigid security measures have permitted actual observation of the activities within the restricted areas (except Subarea A_1) only peripherally, and each area of construction activity has been reported to have strict security restrictions. Descriptions of the security measures have ranged from barbed wire fences, watchtowers, electrified wire fences, and brick or concrete walls to the report of one informant that no special security measures were evident in one area in February-March 1959. There have been many reports that civilian drivers of trucks carrying construction material to the restricted areas were not permitted to enter the areas with their trucks. Military drivers took over the loaded trucks at the entrance and returned the empty trucks later. One persistent rumor had a farmer being shot while trying to retrieve his cow from the restricted area. This rumor has been linked with each of the major restricted zones in the area. 80/

APPENDIX B

SOURCE REFERENCES

Evaluations, following the classification entry and designated "Eval.," have the following significance:

Source of Information	Information
Doc. - Documentary	1 - Confirmed by other sources
A - Completely reliable	2 - Probably true
B - Usually reliable	3 - Possibly true
C - Fairly reliable	4 - Doubtful
D - Not usually reliable	5 - Probably false
E - Not reliable	6 - Cannot be judged
F - Cannot be judged	

"Documentary" refers to original documents of foreign governments and organizations; copies or translations of such documents by a staff officer; or information extracted from such documents by a staff officer, all of which may carry the field evaluation "Documentary."

Evaluations not otherwise designated are those appearing on the cited document; those designated "RR" are by the author of this report. No "RR" evaluation is given when the author agrees with the evaluation on the cited document.

---

1. USSR, Gosudarstvennyy Nauchnyy Institut. "Taurage" (Taurage), Bol'shaya sovetskaya entsiklopediya (Great Soviet Encyclopedia), vol 42, Moscow, 1956. Eval. Doc.

2.

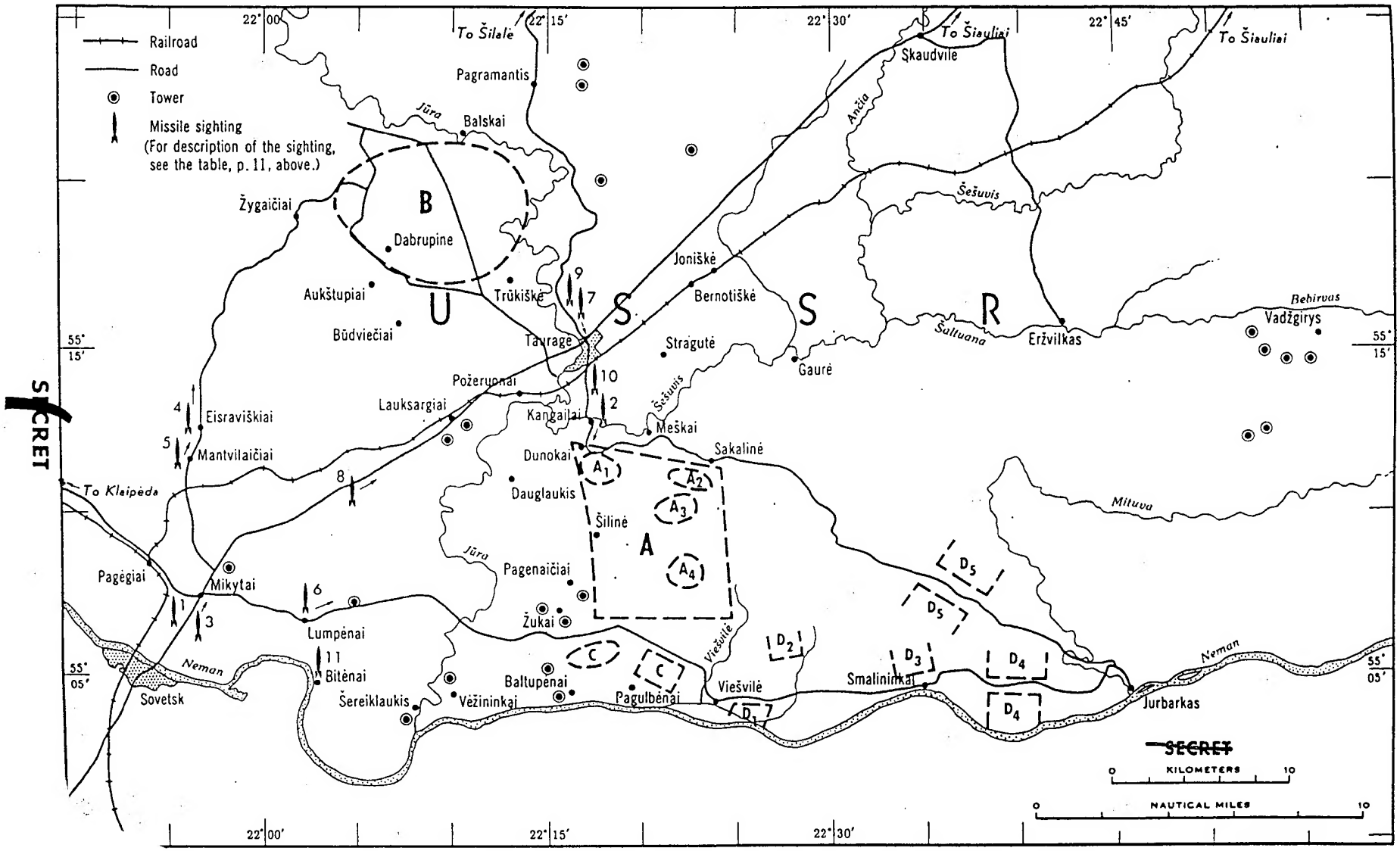

Figure 3. Areas of Possible Activity in Guided Missiles in the Taurage Area of the Lithuanian SSR
1958 Through June 1960